REMARKS

Claims 1-34 are pending in this application. Claim 30 has been canceled; and claims 6, 23, 28 and 29 have been amended.

As a preliminary matter, Applicants note that the reference, Branc et al. (EP 0402960), which was cited in the rejection of claims 28-31, was not listed on the PTO-892 Form issued with the outstanding Office Action. Applicants request that another PTO-892 Form be issued listing this reference, so that it may be printed on the face of the patent.

The Examiner's allowance of claims 10 and 25 is acknowledged and appreciated.

Claims 1, 4, 7-9, 13, 16, 18, 20, 21 and 32-34 stand rejected under 35 U.S.C. §102(b) as being anticipated by Shimada (JP 5-175565). Applicants respectfully traverse this rejection.

The present invention is directed to a disk unit including an actuator arm having a read and write head for reading and writing to a disk. The disk unit of the invention also includes a temperature or a humidity sensor means for controlling the heat and the humidity in accordance with the detection by the respective sensors.

The Shimada reference relates to a disk environment managing system which includes in addition to the hard disk 5, components such as a moisture detector 3, a temperature detector 4, and a controller 7, etc.

The present invention is directed to a disk unit and the features of the invention are specifically associated with the disk unit. In other words, the claimed features of the present invention are a part of and incorporated in the disk unit itself. Shimada, on the other hand, discloses an entire system in which the hard disk 5 is only a part of the system and is controlled by components in the system that is outside the hard disk, and not incorporated in the hard disk. The hard disk itself of Shimada, does not disclose or suggest at least the temperature or the humidity sensing features of the present invention as claimed. For this reason, at least all the claims rejected under section 102(b) are allowable over Shimada.

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Shimada. Claim 3 depends from claim 1, and therefore, necessarily include features of claim 1 in addition to the features particular to claim 3. Accordingly, Applicants respectfully traverse this rejection for the reasons given above traversing the rejection of claim 1.

Claims 2, 5, 14, 19 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shimada in view of Li (U.S. Pat. No. 6,385,007). These rejected claims depend from claims 1, 13 or 18, and therefore, necessarily include all the features of their respective independent claims. The Li reference is combined with Shimada to remedy the deficiencies of the features described in these dependent claims. However, even if these references were combined, the resulting combinations still would not disclose or suggest the missing features of their respective independent claims 1, 13 and 18. As such, Applicants respectfully traverse this rejection for the same reasons given above traversing the rejection of claims 1, 13 and 18.

Claims 6 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shimada in view of Olarig et al. (U.S. Pat. No. 5,280,603). Applicants respectfully traverse this rejection.

Claims 6 and 23 also specifically describe a disk unit which includes at least the features of the temperature sensor or the humidity sensor. Shimada, as discussed above is directed to an entire system for controlling moisture and temperature in a hard disk. The hard disk of Shimada does not itself encompass the temperature or humidity sensing features of the present invention.

Similarly, the Olarig et al. reference also relates to a system including one or more temperature sensors and/or environmental sensors that monitor environmental perimeters that affect the operation of a high-speed memory device. As in Shimada, the Olarig et al. reference discloses temperature sensors which are separate and apart from its memory device. It does not disclose or suggest a disk unit which itself includes features of the temperature sensor or the humidifier sensor. Thus, even if the cited references were combined, the resulting device would still be a broader system which may have some form of temperature sensing element in the system. However, the combination would not result in the disk unit itself having the features as described in independent claims 6 and 23. For this reason, claims 6 and 23 are allowable over the cited references.

Claim 28 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Yanagisawa (U.S. Pat. No. 6,236,532) in view of Branc et al. (EP 0402960). Applicants respectfully traverse this rejection. Claim 28 has been amended to include the features of

claim 30, which has now been cancelled. As amended, claim 28 calls for a dehumidifying agent which is provided between the first outline and the second outline of the disk unit.

As recognized by the Examiner, the Yanagisawa "fails to teach a double-structure for the disk drive." The Branc et al. reference is cited for disclosing a humidity sensor between the first outline and the second outline. Contrary to Branc et al., claim 28 calls for a dehumidifying agent provided between the first outline and the second outline, and not a humidity sensor as in the cited reference. Moreover, the humidity sensor or humidistat 33 is provided outside the outer body 38 of Branc et al., and not between the first outline and the second outline (i.e., between the inner body and the outer body) as in the present invention. Therefore, even if the cited references were combined, they still would not disclose or suggest the features of now amended claim 28. For this reason, claim 28 and claims 29 and 31 which depend from claim 28 are allowable over Yanagisawa and Branc et al.

Claim 29 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Yanagisawa and Branc et al. in view of O'Sullivan (U.S. Pat. No. 4,980,786). Applicants traverse this rejection for the reasons given above traversing the rejection of claim 28, from which claim 29 depends.

Claims 15 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shimada in view of Mori et al. (U.S. Pat. No. 5,594,603). Applicants traverse this rejection for the reasons given traversing the rejection of claims 1 and 13, from which these claims depend.

Claim 24 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Shimada in view of Fukuzono (U.S. Pat. No. 4,980,786). Applicants traverse this rejection for the reasons given above traversing the rejection of claim 18, from which claim 24 depends.

Claims 11 and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shimada in view of Okada et al. Applicants respectfully traverse this rejection.

The present invention, as described in claim 11, calls for a disk unit including an access circuit which performs, when writing data into the disk in a case where the temperature sensor detects a temperature which is out of a predetermined temperature range, a writing confirmation operation for comparing written data with read data.

As recognized by the Examiner, Shimada fails to teach the access circuit of the invention. Okada et al. is cited for disclosing this feature. However, the temperature sensor of Okada merely detects the temperature to change a waiting period in a writing operation. During the waiting period, the writing operation is stopped until the temperature of its head falls. Rewriting operation starts after this period. The rewriting operation is performed when an error is detected, without comparing written data and read data. In other words, Okada does not disclose or suggest the features of the access circuit for performing a writing confirmation operation for comparing written data with read data as called for in claim 11. Accordingly, even if Okada and Shimada were combined, the combination still would not disclose or suggest the features of the access circuit of the present invention. For this reason, claim 11 and its dependent claim 12 are allowable over the cited references.

Claims 26 and 27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yotsuya et al. in view of Okada et al and Schanezer et al. (U.S. Pat. No. 6,046,871). Applicants respectfully traverse this rejection. As in the rejection of claims 11 and 12, the Examiner cites the Okada et al. reference for disclosing the features of the access circuit writing confirmation operation of the present invention. As discussed above, the Okada et al. does not disclose or suggest the claimed writing confirmation operation for comparing written data with read data. Accordingly, even if all the references were combined, the resulting device still would not disclose or suggest these features of the present invention. For this reason, claims 26 and 27 are also allowable over the cited references.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. The Examiner should contact Applicants' undersigned attorney if a telephone conference would expedite prosecution.

Respectfully submitted,

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